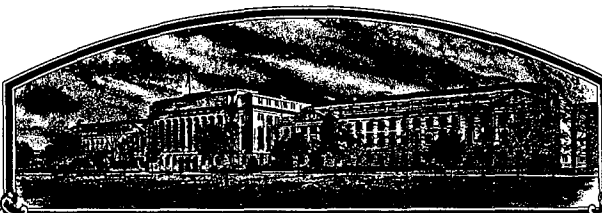


No.

8700134



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

United AgriSeeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN

'NS701'



In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington, D. C.
this 31st day of May in
the year of our Lord one thousand nine
hundred and eighty-eight.

Attest:

Kenneth W. Hens
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Paul E. Lyng
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

| | | | | | |
|--|--|--|--|---|--|
| 1. NAME OF APPLICANT(S) United AgriSeeds, Inc. | | 2. TEMPORARY DESIGNATION A632xB73Ht-1112111 | | 3. VARIETY NAME NS701 | |
| 4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 103 Tomaras Ave. Savoy, Illinois 61874 | | 5. PHONE (Include area code) 217-373-5300 | | FOR OFFICIAL USE ONLY PVPO NUMBER 8700134 | |
| 6. GENUS AND SPECIES NAME Zea Mays | | 7. FAMILY NAME (Botanical) Gramineae | | FILING DATE May 11, 1987 TIME 1:45 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M. | |
| 8. KIND NAME Corn, Dent | | 9. DATE OF DETERMINATION 1-26-87 | | FEES RECEIVED AMOUNT FOR FILING \$ 1800.00 DATE May 11, 1987 AMOUNT FOR CERTIFICATE \$ 200.00 DATE April 27, 1988 | |
| 10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Corporation | | | | 11. IF INCORPORATED, GIVE STATE OF INCORPORATION Massachusetts | |
| 13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Mike McFatrigh P.O. Box 4011 United AgriSeeds, Inc. Champaign, IL 61820 | | | | 12. DATE OF INCORPORATION | |
| PHONE (Include area code): 217-373-5300 | | | | | |

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. ☒ Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety (Request form from Plant Variety Protection Office.)
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) ☐ Yes (If "Yes," answer items 16 and 17 below) ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ Yes ☒ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ Foundation ☐ Registered ☐ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ Yes (If "Yes," give date)☒ No


19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?

☐ Yes (If "Yes," give names of countries and dates)☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

| | |
|---|----------------|
| SIGNATURE OF APPLICANT  | DATE 5-6-87 |
| SIGNATURE OF APPLICANT | DATE 1 |

Dent Corn
NS701

14A. Exhibit A - Breeding History

Pedigree: A632 x B73Ht

"NS701" is the result of 8 generations of selfing the cross A632 x B73 Ht. Each generation was ear rowed on the basis of appearance and early generation testing was employed to determine combining ability and hybrid performance.

"NS701" appears stable and uniform and has entered hybrid seed production as a seed parent.

Dent Corn
NS701

14A. Addendum to Exhibit A - Breeding History

"NS701" was used first in the summer of 1987 to produce hybrid dent seed corn which will be sold as the hybrid 2700. The hybrid is the result of the cross LH38 x NS701 and will be commercially available in the U.S. Corn Belt for the first time in 1987/88 by our divisions: Lynks Seeds of Marshalltown, IA; and Keltgen Seeds of Olivia, MN.

NS701 has exhibited no offtype in four (4) generations of evaluation for uniformity and stability. The stability and uniformity has been maintained as the line was being increased and reproduced in three (3) different environments.

Dent Corn
NS701

14B. Exhibit B - Statement of Novelty.

"NS701" is most similar to "B73". "NS701" differs from "B73" in that it flowers about 2 days earlier than "B73"; has better root strength than "B73"; and the stalk above the ear does not break as bad as "B73". "NS701" will silk cut the kernel 3% or less unlike "B73".

8700134



UNITED AGRISEEDS, INC., P.O. BOX 4011, CHAMPAIGN, ILLINOIS 61820, (217) 373-5300

EXHIBIT B

March 1, 1988

VIA FEDERAL EXPRESS

Mr. Robert Snyder, U.S.D.A.
 Plant Variety Protection Office
 National Agricultural Library Bldg.
 Room 500
 Beltsville, MD 20705

Dear Mr. Snyder:

I am writing to provide you with more phenotypic data which distinguishes our "NS701" corn P.V.P. application number 8700134, from B73.

Flowering

| | | <u>50% Pollen</u> | <u>50% Silk</u> |
|----------------------|-------|-------------------|-----------------|
| Champaign, IL - 1987 | | | |
| | B73 | 7/8 | 7/8 |
| | NS701 | 7/8 | 7/5 |
| Olivia, MN - 1987 | | | |
| | B73 | 7/24 | 7/24 |
| | NS701 | 7/24 | 7/22 |
| Champaign, IL - 1986 | | | |
| | B73 | 7/19 | 7/19 |
| | NS701 | 7/20 | 7/16 |
| Olivia, MN - 1986 | | | |
| | B73 | 8/3 | 8/2 |
| | NS701 | 8/3 | 7/31 |

Flowering data taken as the average of three replications per location per year.

Plant Height

Champaign, IL - 1987

| | |
|-------|-------------------------------|
| B73 | 95" (241.3 cm) to tassel tip |
| NS701 | 91" (231.14 cm) to tassel tip |

EXHIBIT B

Mr. Robert Snyder
 March 1, 1988
 Page 2

Champaign, IL - 1986

B73 101" (256.54 cm) to tassel tip
 NS701 37" (233.68 cm) to tassel tip

Height data taken as the average of three replications per year (6 plants sampled/rep).

Ear Height

Champaign, IL - 1987

B73 41" (104.14 cm) to ear base
 NS701 37" (93.98 cm) to ear base

Champaign, IL - 1986

B73 43" (109.22 cm) to ear base
 NS701 38 (96.52 cm) to ear base

Height data taken as the average of three replications per year (6 plants sampled/rep).

Ear (Husked)

| | <u>Length</u> | <u>Mid-point Diameter</u> | <u>Kernel Rows</u> |
|-------|---------------|-------------------------------|--------------------|
| B73 | 14 cm | 45 mm | 18 |
| NS701 | 15 cm | 40 mm | 16 |

Kernel (Dried)

| | <u>Long</u> |
|-----|----------------|
| B73 | 11 mm 10 mm |

Tassel Branch Angle

| | |
|-------|--------|
| B73 | 25-30° |
| NS701 | 35-40° |

Ear, kernel data taken as an average of 10 samples from ear composites of 3 replications. Tassel Branch data taken as the average of three replications (6 plants sampled/rep).

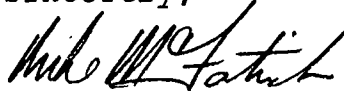
EXHIBIT B

Mr. Robert Snyder
March 1, 1988
Page 3

In summary, B73 is a corn inbred which is 2.5 days later than NS701. Additionally, B73 is 6.5 inches (16.51 cm) taller than NS701 with a 4.5 (11.43 cm) higher ear placement to NS701. The tassels of both are distinct from each other with B73 being compact and closed or tighter to the axillar branch while NS701 is more open.

I have also included three articles which demonstrate the testing methods used to distinguish NS701 from B73 using starch gel electrophoresis and isozyme identification. I hope these articles are useful for you either as general information or in processing our application. Thank you for your help in filing our application. Please let me know if there are further questions.

Sincerely,



Mike McFatrich
Director, Product Development

MMF/sem

Enclosures

FORM GR-470-28
(2-15-74)UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782EXHIBIT
(Corn)OBJECTIVE DESCRIPTION OF VARIETY
CORN (ZEA MAYS)

| | |
|--|--|
| NAME OF APPLICANT(S) United AgriSeeds, Inc. | FOR OFFICIAL USE ONLY |
| ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) 103 Tomaras Ave. Savoy, Illinois 61874 | PVPO NUMBER 8700134 |
| | VARIETY NAME OR TEMPORARY DESIGNATION NS701 |

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., 089 or 09) when number is either 99 or less or 9 or less.

1. TYPE:

☒ 2

1 = SWEET

2 = DENT

3 = FLINT

4 = FLOUR

5 = POP

6 = ORNAMENTAL

2. REGION WHERE BEST ADAPTED IN THE U.S.A.:

☒ 2

1 = NORTHWEST

2 = NORTHCENTRAL

3 = NORTHEAST

4 = SOUTHEAST

5 = SOUTHCENTRAL

6 = SOUTHWEST

7 = MOST REGIONS

3. MATURITY (In Region of Best Adaptability):

(Under "Comments" (pg. 3) state how
heat units were calculated)☒ 55

DAYS FROM EMERGENCE TO 50% OF PLANTS IN SILK

☒ 1425

HEAT UNITS

☐ ☐

DAYS FROM 50% SILK TO OPTIMUM EDIBLE QUALITY

☐ ☐ ☐ ☐

HEAT UNITS

☒ 60

DAYS FROM 50% SILK TO HARVEST AT 25% KERNEL MOISTURE

☐ ☐ ☐ ☐

HEAT UNITS

4. PLANT:

☒ 231

CM. HEIGHT (To tassel tip)

☒ 93

CM. EAR HEIGHT (To base of top)

☒ 14

CM. LENGTH OF TOP EAR INTERNODE

Number of Tillers:

☒ 2

1 = NONE

2 = 1-2

3 = 2-3

4 = > 3

Number of Ears Per Stalk:

☒ 3

1 = SINGLE

2 = SLIGHT TWO-EAR TENDENCY

3 = STRONG TWO-EAR TENDENCY 4 = THREE-EAR TENDENCY

Cytoplasm Type:

☒ 1

1 = NORMAL

2 = "T"

3 = "S"

4 = "C"

5 = OTHER (Specify) _____

5. LEAF (Field Corn Inbred Examples Given):

Color:

☒ 2

1 = LIGHT GREEN (HY)

2 = MEDIUM GREEN (WF9)

3 = DARK GREEN (B14)

4 = VERY DARK GREEN (K)

Angle from Stalk (Upper half):

☒ 2

1 = < 30°

2 = 30-60°

3 = > 60°

Sheath Pubescence:

☐

1 = LIGHT (W22)

2 = MEDIUM (WF9)

3 = HEAVY (OH26)

Marginal Waves:

☒ 2

1 = NONE (HY)

2 = FEW (WF9)

3 = MANY (OH7L)

Longitudinal Creases:

☒ 2

1 = ABSENT (OH51)

2 = FEW (OH56A)

3 = MANY (PA11)

Width:

☒ 9

CM. WIDEST POINT OF EAR NODE LEAF

Length:

☒ 74

CM. EAR NODE LEAF

☒ 12

NUMBER OF LEAVES PER MATURE PLANT

8

6. TASSEL:

☐ 8

NUMBER OF LATERAL BRANCHES

Branch Angle from Central Spike:

☐ 2

1 = < 30°

2 = 30-40°

3 = > 45°

Penduncle Length:

☐ 1 ☐ 0

CM. FROM TOP LEAF TO BASAL BRANCHES

Pollen Shed:

☐ 2

1 = LIGHT (WF9)

2 = MEDIUM

3 = HEAVY (KY21)

☐ 1

Anther Color:

1 = YELLOW

2 = PINK

3 = RED

4 = PURPLE

5 = GREEN

☐ 3

Glume Color:

6 = OTHER (Specify) _____

Pollen Restoration for Cytoplasm (0 = Not Tested, 1 = Partial, 2 = Good)

☐ 0

"T"

☐ 0

"S"

☐ 0

"C"

☐

OTHER (Specify Cytoplasm and degrees of restoration) _____

7. EAR (Husked Ear Data Except When Stated Otherwise):

☐ 1 ☐ 5

CM LENGTH

☐ 4 ☐ 0MM. MID-POINT
DIAMETER1 ☐ 2 ☐ 0

GM. WEIGHT

Kernel Rows:

☐ 2

1 = INDISTINCT

2 = DISTINCT

☐ 1 ☐ 6

NUMBER

☐ 1

1 = STRAIGHT

2 = SLIGHTLY CURVED

3 = SPIRAL

Silk Color (Exposed at Silking Stage):

☐ 1

1 = GREEN

2 = PINK

3 = SALMON

4 = RED

Husk Color:

☐ 1

FRESH

1 = LIGHT GREEN

2 = DARK GREEN

3 = PINK

☐ 6

DRY

4 = RED

5 = PURPLE

6 = BUFF

Husk Extension: (Harvest Stage)

☐ 3

1 = SHORT (Ears Exposed) 2 = MEDIUM (Barely Covering Ear)

3 = LONG (8-10CM Beyond Ear Tip)

4 = VERY LONG (> 10 CM)

Husk Leaf:

☐ 2

1 = SHORT (< 8 CM)

2 = MEDIUM (8-15 CM)

3 = LONG (> 15 CM)

Shank:

☐ 1 ☐ 0

CM LONG

☐ 5

NO. OF INTERNODES

Position at Dry Husk Stage:

☐ 1

1 = UPRIGHT

2 = HORIZONTAL

3 = PENDENT

Taper:

☐ 2

1 = SLIGHT

2 = AVERAGE

3 = EXTREME

Drying Time (Unhusked Ear):

☐ 3

1 = SLOW

2 = AVERAGE

3 = FAST

8. KERNEL (Dried):

Size (From Ear Mid-Point):

☐ 1 ☐ 0

MM LONG

☐ 0 ☐ 7

MM. WIDE

☐ 0 ☐ 4

MM. THICK

Shape Grade (% Rounds):

☐ 3

1 = < 20

2 = 20-40

3 = 40-60

4 = 60-80

5 = > 80

8. KERNEL (Dried):

☒ 1 Pericarp Color: 1 = COLORLESS 2 = RED-WHITE 3 = TAN 4 = BRONZE
 5 = BROWN 6 = LIGHT RED 7 = CHERRY RED
 8 = VARIEGATED (Describe) _____

☐ 1 Aleurone Color: 1 = HOMOZYGOUS 2 = SEGREGATING (Describe) _____

☐ 5 1 = WHITE 2 = PINK 3 = TAN 4 = BROWN 5 = BRONZE 6 = R
 7 = PURPLE 8 = PALE PURPLE 9 = VARIEGATED (Describe) _____

☒ 2 3 RFS 12/30/88 Endosperm Color: 1 = WHITE 2 = PALE YELLOW 3 = YELLOW 4 = PINK-ORANGE 5 = WHITE CAP.

Endosperm Type:

☐ 3 1 = SWEET (su1) 2 = EXTRA SWEET (sh2) 3 = NORMAL STARCH 4 = HIGH AMYLOSE STARCH
 5 = WAXY STARCH 6 = HIGH PROTEIN 7 = HIGH LYSINE 8 = OTHER (Specify) _____

☐ 2 ☐ 6 GM. WEIGHT /100 SEEDS (Unsize Sample)

9. COB:

☐ 2 ☐ 6 MM. DIAMETER AT MID-POINT

Strength:

☐ 2 1 = WEAK 2 = STRONG

Color:

☐ 3 1 = WHITE 2 = PINK 3 = RED 4 = BROWN
 5 = VARIEGATED 6 OTHER (Specify) _____

10. DISEASE RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

| | | | | | |
|--------------------------|-----------------------|--------------------------|----------------------|--------------------------|------------------------|
| <input type="checkbox"/> | STALK ROT (Diplodia) | <input type="checkbox"/> | STALK ROT (Fusarium) | <input type="checkbox"/> | STALK ROT (Gibberella) |
| <input type="checkbox"/> | NORTHERN LEAF BLIGHT | <input type="checkbox"/> | SOUTHERN LEAF BLIGHT | <input type="checkbox"/> | SMUT |
| <input type="checkbox"/> | SOUTHERN RUST | <input type="checkbox"/> | CORN SMUT | <input type="checkbox"/> | BACTERIAL WILT |
| <input type="checkbox"/> | BACTERIAL LEAF BLIGHT | <input type="checkbox"/> | MAIZE DWARF MOSAIC | <input type="checkbox"/> | STUNT |
| <input type="checkbox"/> | OTHER (Specify) _____ | | | | |

11. INSECT RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

| | | | | | | | |
|--------------------------|---------------------|--------------------------|-----------------------|--------------------------|-----------|--------------------------|-------|
| <input type="checkbox"/> | CORNBORER | <input type="checkbox"/> | EARWORM | <input type="checkbox"/> | SAPBEETLE | <input type="checkbox"/> | APHID |
| <input type="checkbox"/> | ROOTWORM (Northern) | <input type="checkbox"/> | ROOTWORM (Western) | | | | |
| <input type="checkbox"/> | ROOTWORM (Southern) | <input type="checkbox"/> | OTHER (Specify) _____ | | | | |

12. VARIETIES MOST CLOSELY RESEMBLING THAT SUBMITTED FOR THE CHARACTERS GIVEN:

| CHARACTER | VARIETY | CHARACTER | VARIETY |
|------------|---------|------------------|---------|
| Maturity | B73 | Kernel Type | |
| Plant Type | | Quality (Edible) | |
| Ear Type | B73 | Usage | |

REFERENCES:

U.S. Department Agriculture. Yearbook 1937.

Corn: Culture, Processing, Products. 1970 Avi Publishing Company, Westport, Connecticut. (Numerous (Authors)

Emerson, R.A., G.W. Beadle, and A.C. Fraser. A Summary of Linkage Studies in Maize. Cornell A.E.S., Mem. 180. 1935.

The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wisconsin.

Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S. Bul. 831. 1959.

Butler, D.R. 1954 - A System for the Classification of Corn Inbred Lines - PhD. Thesis, Ohio State University.

COMMENTS:

Dent Corn
NS701

14D - Additional Description of "NS701"

NS701, when combined with LH38, makes a significant improvement over the combination of B73 x LH38 and this comparison should be made as a basis of novelty.

The hybrid which results from the cross NS701 x LH38 is a 110 day maturing hybrid. It's three year over location average is 7.4 bu/A better than B73 x LH38. The yield, moisture ratio of NS701 x LH38 versus B73 x LH38 over three years is 0.8 better for NS701 x LH38. This represent 1.0% less moisture at harvest for NS701 x LH38. Ear placement with NS701 x LH38 is lower than that of B73 x LH38.

Hybrid Characteristic Comparison:

| | <u>NS701 x LH38</u> | <u>B73 x LH38</u> |
|---------------------------------|---------------------|-------------------|
| Maturity | 110 Day | 112 Day |
| Yield (3 year average) | 165.0/bu/A | 157.7 bu/A |
| Moisture (3 year average) | 20.5 | 21.5 |
| Yield/Moisture (3 year average) | 8.1 | 7.3 |
| Root lodging | 2% | 3% |
| Stalk lodging | 8% | 6% |
| Ears Dropped | 1% | 2% |
| Tassel Date (appx) | 7/15 | 7/15 |
| Silk Date (appx) | 7/15 | 7/15 |
| Plant Height | 98" | 100" |
| Ear Height | 40" | 42" |
| Stay Green Vigor | good | good |

Performance Data

1986

| Nebraska (2 loc.) | <u>Yld.</u> | <u>Moist.</u> | <u>Stk. Lod.</u> | <u>Rt. Lod.</u> | <u>Y/M</u> |
|-------------------|-------------|---------------|------------------|-----------------|------------|
| NS701 x LH38 | 154.1 bu/A | 14.7% | 4.6% | 0 | 10.5 |
| B73 x LH38 | 156.7 | 15.2 | 3.9 | 0 | 10.3 |
| Average | 155.4 | 14.9 | 4.3 | 0 | 10.4 |
| Iowa (5 loc) | | | | | |
| NS701 x LH38 | 185.5 bu/A | 17.4% | 7.9% | 1.8% | 10.6 |
| B73 x LH38 | 163.1 | 16.4 | 10.9 | 10.7 | 9.9 |
| Average | 174.3 | 16.9 | 9.4 | 6.2 | 10.3 |
| Illinois (5 loc) | | | | | |
| NS701 x LH38 | 183.0/bu/A | 20.5% | 8.1% | 3.7% | 8.9 |
| B73 x LH38 | 153.7 | 22.3 | 7.9 | 7.9 | 6.9 |
| Average | 168.4 | 21.4 | 8.0 | 5.8 | 7.9 |
| Indiana (2 loc) | | | | | |
| NS701 x LH38 | 193.0 bu/A | 16.9% | 8.4% | 0% | 11.4 |
| B73 x LH38 | 195.9 | 17.0 | 2.9 | 0 | 11.5 |
| Average | 194.5 | 16.9 | 5.6 | 0 | 11.5 |

| All locations | <u>Yld.</u> | <u>Moist.</u> | <u>Stk. Lod.</u> | <u>Rt. Lod.</u> | <u>Y/M</u> |
|---------------|-------------|---------------|------------------|-----------------|------------|
| NS701 x LH38 | 181.2 bu/A | 18.1% | 7.6% | 2.0 | 10.0 |
| B73 x LH38 | 180.8 | 18.9 | 4.4 | 4.7 | 9.6 |
| Average | 181.0 | 18.4 | 6.1 | 3.3 | 9.8 |

1985

Nebraska (2 loc)

| | | | | | |
|--------------|------------|-------|--|--|-----|
| NS701 x LH38 | 114.5 bu/A | 19.5% | | | 5.9 |
| B73 x LH38 | 110.5 | 20.5 | | | 5.4 |

Iowa (3 loc)

| | | | | | |
|--------------|------------|-------|--|--|-----|
| NS701 x LH38 | 162.3 bu/A | 25.2% | | | 6.4 |
| B73 x LH38 | 160.7 | 26.2 | | | 6.1 |

Illinois (4 loc)

| | | | | | |
|--------------|------------|-------|--|--|-----|
| NS701 x LH38 | 180.3 bu/A | 25.0% | | | 7.2 |
| B73 x LH38 | 168.3 | 26.8 | | | 6.3 |

Indiana (2 loc)

| | | | | | |
|--------------|------------|-------|--|--|-----|
| NS701 x LH38 | 169.5 bu/A | 23.2% | | | 7.3 |
| B73 x LH38 | 167.5 | 24.4 | | | 6.9 |

All locations

| | | | | | |
|--------------|------------|-------|--|--|-----|
| NS701 x LH38 | 162.4 bu/A | 24.4% | | | 6.7 |
| B73 x LH38 | 155.6 | 25.9 | | | 6.0 |

1984

Nebraska (2 loc)

| | | | | | |
|--------------|------------|-------|--|--|-----|
| NS701 x LH38 | 175.0 bu/A | 22.7% | | | 7.7 |
| B73 x LH38 | 164.0 | 24.8 | | | 6.6 |

Illinois (1 loc)

| | | | | | |
|--------------|------------|------|--|--|-----|
| NS701 x LH38 | 134.0 bu/A | 20.0 | | | 6.7 |
| B73 x LH38 | 137.0 | 21.7 | | | 6.3 |

All locations

| | | | | | |
|--------------|-------|------|--|--|-----|
| NS701 x LH38 | 155.8 | 21.5 | | | 7.2 |
| B73 x LH38 | 145.6 | 22.6 | | | 6.4 |

Dent Corn
NS701

14E - Exhibit E - Statement of the Basis of the Applicant's
Ownership

The variety "NS701", for which Plant Variety Protection is being sought, was developed by Tom Mack who is an employee of Keltgen Seed of Olivia, Minnesota. Keltgen Seed is a company, wholly owned by United AgriSeeds, Inc. of Savoy/Champaign, Illinois.

Additionally, by signing an invention and non-disclosure agreement with United AgriSeeds, Inc., Tom Mack assigns all rights to plant material discovered, invented or developed by him to United AgriSeeds and retains no right to any material generated.

This Assignment 990 is in the ENGLISH language and has the same meaning in other languages with the same 990 number.

[illegible]

This Assignment 990 is in the ENGLISH language and has the same meaning in other languages with the same 990 number.

8700134

ASSIGNMENT

(TRANSFER

We, **ASSIGNOR:** UNITED AGRISEEDS, INC.
of: 103 Tomaras
Savoy, Illinois 61874
United States of America

a company organized and existing under the laws of the State of Delaware, United States of America, do hereby claim and declare that we are the recorded owner of the following Patent Application(s) or Letters Patent(s) and other rights and powers obtainable or exercisable in respect thereof as numbered in U.S. Plant Variety Protection Certificate 8700134 issued on May 31, 1988.

We do hereby, for good and valuable consideration received, sell, assign and transfer unto:

ASSIGNEE: DowElanco
of: 9002 Purdue Road
Indianapolis, Indiana 46268
United States of America

a general partnership organized and existing under the laws of the state of Indiana, our entire right, title and interest in and to the said Patent Application(s) or Letters Patent(s), and consent the recordal of this Assignment.

ASSIGNOR

Subscribed and Sworn by us:

At Midland, Michigan 48640 USA
this 23rd day of October 1990

ASSIGNEE

Accepted by us:

At Midland, Michigan 48640 USA
this 23rd day of October 1990

UNITED AGRISEEDS, INC.

SIGNATURE Ronald G. Brookens
Ronald G. Brookens
Assistant Secretary

DowElanco

SIGNATURE Ronald G. Brookens
DowElanco
Ronald G. Brookens
Assistant Secretary

CORP.
SEAL

**CORP.
SEAL**

8700134

TRUE COPY

TO ALL TO WHOM THESE PRESENTS SHALL COME,

I Do Hereby Certify that the annexed document(s) are TRUE COPIES of the original document(s) which I have compared.

at Midland, Michigan 48640, United States of Americathis 24th day of October 19 90Print or Type Name
of Person SigningLori J. Upleger
Lori J. Upleger**NOTARIAL CERTIFICATE**UNITED STATES OF AMERICA)
STATE OF MICHIGAN) SS
County/Parish of Midland)On this 24 day of October 1990, personally appeared
before me,

Lori J. Upleger

known or identified to me to be the individual who executed the foregoing document and
acknowledged the same as a free act and deed for uses and purposes therein expressed.

SEAL

Deborah C. Dulude
Notary PublicDEBORAH C. DULUDE
Notary Public, Midland County, Michigan
My Commission Expires June 14, 1994Notary Signature
Print or Type Name
of Notary, Expiration
Date, if any, Title or
Jurisdiction Area

[illegible]

This Notarial Certificate 220 is in the ENGLISH language and has the same meaning in other languages with the same 220 number.

FORM 220

8700134

NOTARIAL CERTIFICATE (Individual)

UNITED STATES OF AMERICA)
STATE OF MICHIGAN) SS
County/Parish of Midland)

On this 22 day of October 1990, personally appeared before me, Ronald G. Brookens, Assistant Secretary, United AgriSeeds, Inc.

known or identified to me to be the individual described in and who executed the foregoing document and acknowledged the same as a free act and deed for uses and purposes therein expressed.

SEAL

Leborah Clift
Notary Public

Notary Public

DEBORAH C. DULUDE
Notary Public, Midland County, Michigan
My Commission Expires June 14, 1994

[illegible]

This Notarial Certificate 220 is in the ENGLISH language and has the same meaning in other languages with the same 220 number.

8700134

UNITED STATES OF AMERICA)
STATE OF MICHIGAN) SS
County/Parish of Midland)

On this 22 day of October 1990, personally appeared before me, Ronald G. Brookens, Assistant Secretary, DowElanco

known or identified to me to be the individual described in and who executed the foregoing document and acknowledged the same as a free act and deed for uses and purposes therein expressed.

SEAL

Deborah Dufield
Notary Public

DEBORAH C. DULUDE
Notary Public, Midland County, Michigan
My Commission Expires June 14, 1994